DEFENSE REUTILIZATION AND MARKETING OFFICE SITE (SS-011)

PROPOSED PLAN

Plattsburgh Air Force Base
Plattsburgh, New York

DRAFT
JANUARY 1993

Plattsburgh Air Force Base
Installation Restoration Program

Prepared by:
URS Consultants, Inc.
282 Delaware Avenue
Buffalo, New York 14202

G1553

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1.0 INTRODUCTION

This Proposed Plan recommends a remedial action for the Defense Reutilization and Marketing Office Site (SS-011) at Plattsburgh Air Force Base (AFB) in Plattsburgh, New York (Figure 1-1). The U.S. Air Force is proposing this plan to address source material (i.e., contaminated soil) and groundwater contamination at SS-011. The action plan has been evaluated in detail as part of the Department of Defense's (DOD) Installation Restoration Program (IRP) at the base.

The Proposed Plan is being published in accordance with Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Its purpose is to summarize the results and conclusions of previous studies, and provide information for public review and comment on the remedial alternative being considered. The U.S. Air Force, in consultation with the U.S. Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC), will consider public input while selecting the final action plan for SS-011.

The Proposed Plan addresses contamination believed to result from previous activities at SS-011. Containers of pesticides containing DDT (4,4'-dichlorodiphenyltrichloroethane) were stored at the site from 1970 to 1972. Sometime during that period a spill of DDT in a petroleum-based carrier occurred. A Phase II Remedial Investigation (RI) was performed in 1989 to define the extent of pesticide-contaminated soils. A Target Cleanup Level evaluation was performed in 1990. Approximately 600 cubic yards of contaminated soil was excavated and disposed of off site during a non-time-critical removal action in August 1991.

Plattsburgh AFB's preferred remedial alternative is "No Further Action." The "No Further Action" Alternative is based on an assessment of the impact of SS-011 on human health and the environment in the absence of remedial action. The "No Further Action" Alternative includes a program to inspect the site every five years.

The preferred remedial alternative is detailed further in Section 4.0 of this document.

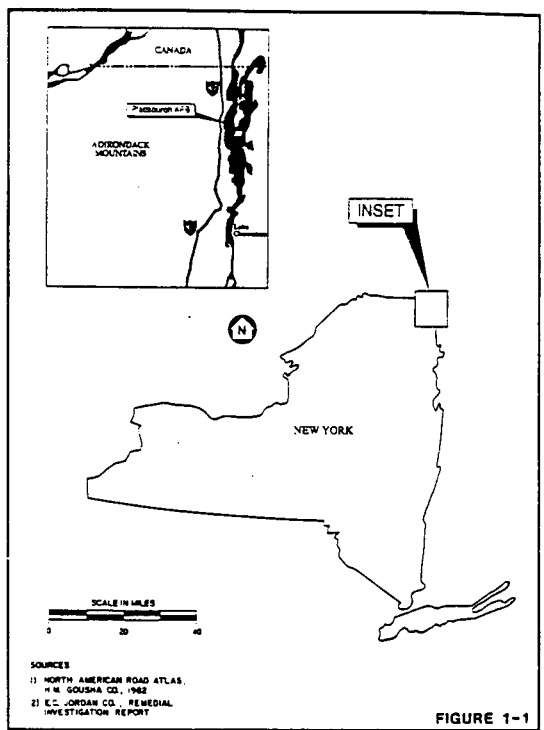


FIGURE 1-1

VICINITY LOCATION MAP

2.0 SITE HISTORY AND DESCRIPTION

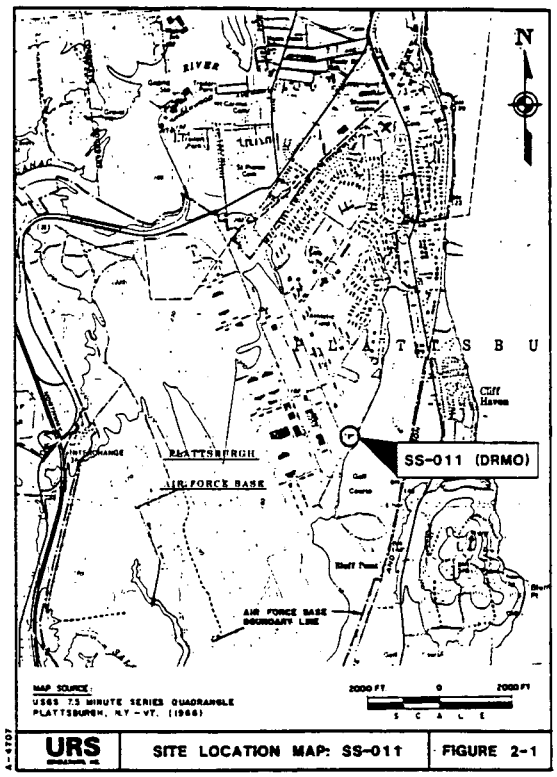
Plattsburgh AFB is located in Clinton County in northeastern New York State, bordered on the north by the city of Plattsburgh and on the east by Lake Champlain. It lies approximately 26 miles south of the Canadian border and 167 miles north of Albany. As part of the U.S. Air Force's IRP (Installation Restoration

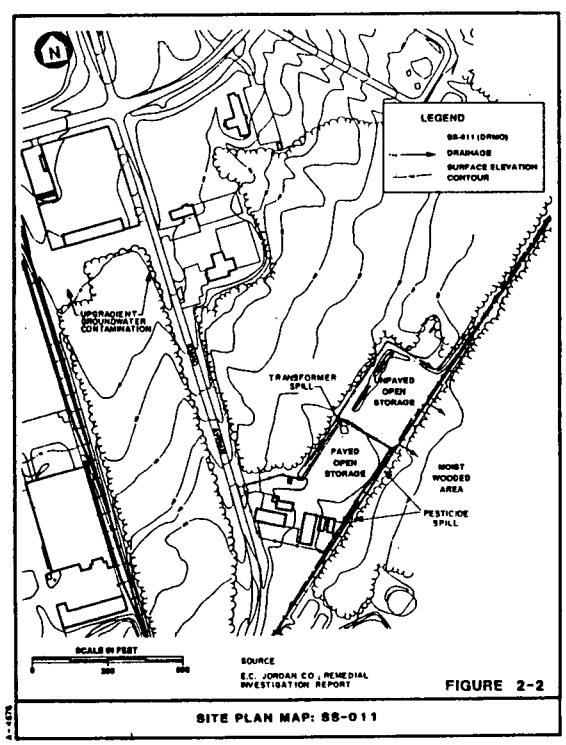
Program), Plattsburgh AFB has initiated activities to identify, evaluate, and clean up identified hazardous waste sites. Based upon the initial evaluation, Plattsburgh AFB was put on the National Priorities List of hazardous waste sites.

2.1 Site History

Site SS-011, the Defense Reutilization and Marketing Office (DRMO), is part of base industrial operations. It is located on the eastern side of Idaho Avenue, with an unused railroad track running the length of the site's southeast border (Figure 2-1). This office handles Air Force-discarded materials that may have reclaimable components. Typical items handled at the DRMO include out-of-service transformers and used refrigerators. The facility consists of several small buildings that serve as both covered storage and administrative offices, and a large adjacent paved area used as open storage (Figure 2-2). For security, the entire facility is enclosed by a chain-link fence that is locked during nonworking hours. Northeast of the site are approximately 90 wooded acres with recreational trails used by base personnel. The base golf course lies to the south and within several hundred feet of SS-011. Five separate field programs have been conducted at SS-011: a Site Inspection (SI) (1987); a two-phase Remedial Investigation (RI) (1988 and 1989); a Removal Action (1991); and a Supplemental RI Sampling Event (1992).

Containers of pesticides containing DDT (4,4' dichlorodiphenyltrichloroethane), whose use at the base has been discontinued, were stored at the site from 1970 to 1972. During this time, the contents of one or more of the storage containers reportedly leaked or was spilled. Spillage ran off the paved open storage area and into soils along the railroad tracks on the yard's eastern side. Because pesticides in general are only





slightly soluble in water, it is common practice to dissolve them in a petroleum-based carrier (i.e. kerosene).

In 1981, a transformer spill occurred in the northwest corner of the paved area. The transformer fluids were cleaned off the frozen surface and the area was excavated the following spring.

During the SI fieldwork in 1987, three surface soil samples were collected in the reported pesticide spill area, and high concentrations of pesticides were detected in these soils. The results of the SI prompted the initiation of the remedial investigation/feasibility study process, which included the completion of a Remedial Investigation Report and Risk Assessment Report. Since the results from the risk assessment show that the removal action was fully effective in achieving protection of human health and the environment, no remedial action objectives were developed. Subsequently, no feasibility study was performed.

2.2 Summary of Previous Investigations

2.2.1 Preliminary Assessment/Site Inspection

A Preliminary Assessment (PA), consisting primarily of a records search, was conducted at SS-011 in 1985. The results of this PA led to additional studies at SS-011.

An SI was conducted at SS-011 in the fall of 1987. The field investigation consisted of a Soil Organic Vapor (SOV) survey, surface soil sampling, soil borings, monitoring well installation, and an associated analytical program. Surficial soil samples were collected within the suspected pesticide spill area. DDT, DDD, and DDE were detected at concentrations up to 15,000, 32, and 27 mg/kg, respectively. Additionally, alpha chlordane and gamma chlordane were detected at concentrations up to 15 and 14 mg/kg, respectively, in the surficial soils. Petroleum hydrocarbons (PHCs) were detected up to of 43,000 mg/kg.

Five borings were drilled into the unpaved open storage area. No contaminants were identified in samples taken from these borings.

Three water table monitoring wells were installed. Halogenated organics (i.e., TCE and DCE) were detected in the single upgradient well (MW-11-001), suggesting a non-site-related source. A second round of sampling at MW-11-001 confirmed the presence of halogenated organic compounds.

2.2.2 Remedial Investigation

To further define the nature and distribution of contaminants detected during the SI, a two-phase RI was conducted during the fall of 1988 and the fall of 1989.

The data quality objectives for the RI were to: (1) define the distribution of DDT-contaminated soils to support a removal action and baseline risk assessment; (2) confirm cleanup of a transformer (PCB oil) spill that had occurred at the site; and (3) confirm the upgradient origin of halogenated organic chemicals in groundwater. During the RI, the site was physically and chemically characterized in order to reach the data quality objectives.

During Phase I of the RI, samples were taken of the surficial soils, subsurface soil, groundwater, sediments, and surface water. Seven additional monitoring wells were installed, including six upgradient of SS-011. Based on the nature and distribution of contaminants, it was determined that SS-011 could be divided into three general source

areas: a pesticide spill area, a transformer spill area; and the undefined upgradient groundwater solvent contamination. The locations of these three areas are shown in Figure 2-2.

The primary soil contaminants in the pesticide spill area are DDT and its degradation products, DDD and DDE. Other pesticides, alpha and gamma chlordane, and heptachlor (which is a component of technical-grade chlordane), were also detected. PHCs were detected with the pesticides.

One PCB, Aroclor 1260, was detected in one of the soil samples collected during the Phase I RI. This, too, was considered a site contaminant.

The halogenated organic chemicals were detected in upgradient monitoring wells, and therefore do not appear to be related to activities at SS-011. DDT was detected in one of the onsite wells.

Potential migration of contaminants from surficial soil was identified to be through groundwater, surface water/sediments, fugitive dust, and vapors. Potential receptors included humans (area and on-base personnel) and biota (terrestrial and aquatic). Potential exposure routes included ingestion, direct contact, and inhalation. It was determined, however, that migration of contaminants off site by groundwater or in eroded surface sediments does not appear to be occurring.

After a review of the Phase I analytical results, further sampling was planned to address the data gaps. Several subsurface soil samples were collected and analyzed at surficial soil sample locations that had shown high concentrations of DDT. DDT, however, has a high propensity for being adsorbed onto soil particles, meaning that DDT spilled on the ground surface would not be expected to reach deep subsurface soils or groundwater. DDT contamination was, however, detected in unfiltered groundwater from one onsite well during the Phase I RI, but was not detected in samples taken from the same well at later dates. It was surmised that the DDT result may have been caused by adsorption to particles in the unfiltered sample, and that it was not reflective of dissolved concentrations in groundwater.

In the fall of 1989, an extensive field screening program was implemented to determine the areal and subsurface distribution of DDT. The purpose of this field screening was to support a Target Cleanup Level (TCL) determination to address human health and ecological risks. An Engineering Evaluation/Cost Analysis (EE/CA) for a DDT soil removal action was conducted based on the TCL. USEPA and NYSDEC concurred that a non-time-critical removal action would be warranted to facilitate rapid cleanup. A field screening sampling plan was designed using a grid with 20-foot node spacing. The grid was extended, as data from field screening became available, to encompass depressions and drainage pathways containing detectable concentrations of pesticides. Approximately 150 samples were collected and analyzed in the field to provide real-time data and to further direct the sampling program. Three small areas of relatively high (greater than 100 ppm) DDT concentrations were identified during the field screening investigation. Data from this investigation were used to develop the plan for the removal action.

2.2.3 Removal Action

On January 18, 1990, USEPA and NYSDEC concurred that a non-time-critical removal action was warranted to facilitate

rapid cleanup of DDT-contaminated soils at Site SS-011. A comparative analysis of alternatives was performed in 1990 as part of an Engineering Evaluation/Cost Analysis, and a remedial alternative that was protective of human health and the environment, ARAR-compliant, readily implementable, and cost-effective was selected.

Based upon an evaluation of site risks to human and environmental receptors, a Target Cleanup Level of 10 mg/kg of DDT was established. The removal action was initiated in August 1991. Approximately 400 feet of railroad track was removed and 600 cubic yards of soil excavated. Sampling and analysis were conducted concurrently during excavation to confirm that all soils exceeding the 10 mg/kg target level had been excavated. Based upon the results of the analysis, locations where DDT levels exceeded 10 mg/kg were excavated further and additional soil samples were taken. Only three of these additional samples were found to marginally exceed the cleanup level, and no further excavation was undertaken. Subsequent to the removal action, the railroad tracks were replaced and the fence surrounding the DRMO was repaired.

2.2.4 Supplemental Sampling Event

In June 1992, USEPA and NYSDEC indicated in comments on the Draft Final Remedial Investigation Report that the full extent of soil contamination by pesticides had yet to be determined. The area in question bordered the railroad tracks near MW-11-002, B-11-002, and B-11-003. Based upon these comments, 3 borings were advanced to the water table in this area in November 1992 and sampled for pesticides at one-foot intervals. No concentrations of DDT above the 10 mg/kg action level were detected in any of the samples.

2.3 Summary of Remaining Site Contamination

As discussed above, possible spills of pesticides and PCBs at the DRMO have been under investigation since 1987. Three different contaminant areas and potential sources have been identified: (1) a pesticide (primarily DDT) spill into a drainage swale east of the DRMO from one or more containers; (2) a transformer (PCB oil) spill in the north corner of the DRMO from staged transformers; and (3) an undetermined upgradient source of halogenated organic chemicals in the groundwater. The following paragraphs discuss the contaminant pattern for each source area.

2.3.1 Pesticide Spill Area

The distribution of the pesticide spill (and associated PHCs from the hydrocarbon carrier) has been defined by extensive soil sampling. The pesticide contamination is confined to the surface and near-surface soils. All soil containing DDT at levels exceeding 13 mg/kg was excavated and removed from the site during the removal action. The distribution of post-excavation residual DDT is depicted in Figure 2-3. Because hydrocarbons found at the DRMO are associated with the DDT as a carrier, this removal action based on DDT level has removed most of the PHC-contaminated soil as well.

2.3.2 Transformer Spill Area

The extent of PCB occurrence from transformer fluids has been defined by extensive surface and subsurface soil and groundwater sampling. No PCBs were detected in any soil samples taken in the vicinity of the transformer spill area. However, PCBs were detected near the pesticide spill, including one subsurface

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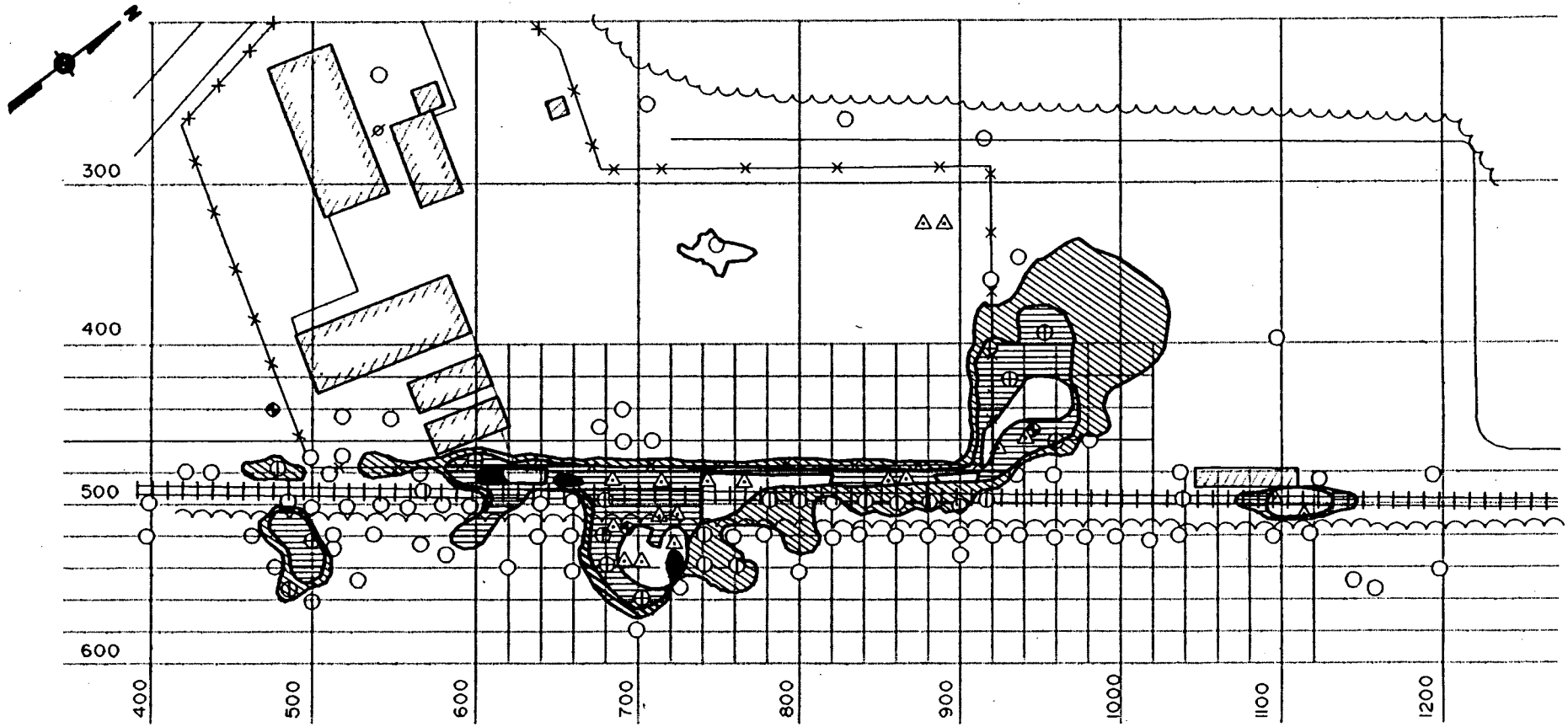

LEGEND:

- 1991 SOIL SAMPLE
- MONITORING WELL
- RAILROAD TRACK
- TREELINE
- GRIDLINES
- FENCE

LEGEND

- < 0.27 MG/KG
- 0.27 - 1.0 MG/KG
- 1.0 - 10.0 MG/KG
- 10.0 - 13.0 MG/KG

SOURCE

ABB ENVIRONMENTAL SERVICES, INC.
FEBRUARY 1992

VALUES FROM EXCAVATED AREA ARE TAKEN FROM THE BASE OF THE EXCAVATION PRIOR TO BACKFILLING WITH CLEAN SOIL

100 0 100

SCALE IN FEET

DRMO SS-011
POST - EXCAVATION RESIDUAL DDT

FIGURE 2-3

detection outside the excavated area and one at the base of the excavation. These results were incorporated into the Risk Assessment (RA).

2.3.3 Upgradient Groundwater Plume

Halogenated organic chemicals, especially TCE and DCE, are present at detectable concentrations in groundwater samples collected from wells upgradient of the DRMO. All analytes detected in onsite wells were also detected in the upgradient well network. Therefore, groundwater contamination present in wells on site is likely due to an upgradient source.

3.0 SUMMARY OF SITE RISKS

A baseline risk assessment (RA) was conducted as part of the RI to evaluate whether site contaminants pose an unacceptable risk to public health or the environment.

3.1 Contaminants of Concern

In order to make a comprehensive assessment of the human health risk posed by the contaminated media at SS-011, all analytes detected in non-excavated soil and groundwater at the site are considered to be contaminants of concern. These analytes are listed by matrix in Table 3-1.

3.2 Exposure Scenarios

Three human exposure scenarios were evaluated as part of the RA, including:

1) Present Use - Potential exposed populations include base workers at the DRMO and youth trespassers (ages 6-18). The routes of exposure are limited to dermal contact with and incidental ingestion of contaminated surface soils.

2) Future Residential Construction - In this scenario, the base is considered closed and residential development of the SS-011 site is in the construction stage. Construction workers are the exposed population. Exposure would result from incidental ingestion, dermal contact, or inhalation of fugitive dust.

3) Completed Future Residential Development - In this scenario the base is considered closed, residential development of SS-011 has been completed, and the development has been occupied. The exposed populations include children and adults exposed via dermal contact with or incidental ingestion of contaminated surface soils or subsurface soils that have been disturbed by construction activities. Ingestion of contaminated groundwater and inhalation of vapor-phase chemicals while showering (adults only) is also considered in this scenario.

3.3. Risks to Human Populations

Based upon the results of the RA, no threat to public health is posed by contaminants present at SS-011. No unacceptable carcinogenic or chronic risk based upon USEPA guidelines is evident given the Present Use and Future Residential Construction scenarios.

Analysis of risk given the Completed Future Residential Development scenario yields a hazard index (chronic risk) of less than one, which indicates that the noncarcinogenic risk is acceptable. The cancer risk is 2×10^{-5}. This indicates that 20 additional personnel out of one million are at risk of developing cancer if no further action is taken and the site is developed according to this scenario

TABLE 3-1

CONTAMINANTS OF CONCERN
UTILIZED IN HEALTH RISK ASSESSMENT
DRM0 SS-011

SURFACE SOILS		ALL SOILS (Surface & Subsurface)		GROUNDWATER	
ANALYTE	MAXIMUM CONC. (ppm)	ANALYTE	MAXIMUM CONC. (ppm)	ANALYTE	MAXIMUM CONC. (ppm)
DDD	0.555	Tetrachloroethene	0.014	2-Butanone	0.026
DDE	0.200	Xylene(Total)	0.009	1,2-Dichloroethene(Total)	0.0015
DDT	1.090	bis(2-ethylhexyl)phthalate	0.530	Benzene	0.001
alpha-Chlordane	0.020	DDD	4.200	Naphthalene	0.0045
gamma-Chlordane	0.026	DDE	0.670	bis(2-ethylhexyl)phthalate	0.0075
Methoxychlor	0.065	DDT	13.000		
Aluminum	10,900	alpha-Chlordane	0.220		
Barium	100	gamma-Chlordane	0.330		
Beryllium	1,400	Methoxychlor	0.065		
Cadmium	4.300	beta-BHC	0.029		
Calcium	15,900	Dieldrin	0.078		
Chromium	22	Heptachlor	0.060		
Copper	19	Aroclor-1260	8.100		
Iron	79,200	Heptachlor Epoxide	0.076		
Lead	15	Aluminum	10,900		
Magnesium	10,300	Barium	100		
Manganese	570	Beryllium	2.600		
Mercury	0.140	Cadmium	9.200		
Nickel	16	Calcium	15,900		
Potassium	2,740	Chromium	61		
Vanadium	109	Copper	40		
Zinc	75	Iron	79,200		
		Lead	75		
		Magnesium	10,300		
		Manganese	570		
		Mercury	0.630		
		Nickel	16		
		Potassium	2,740		
		Vanadium	109		
		Zinc	135		

as outlined in the RA. This risk is within the acceptable range ($1x10^{-6}$ to $1x10^{-4}$) established for remedial action by the National Contingency Plan.

A summary of calculated carcinogenic and chronic risks for each exposure scenario is presented in Table 3-2.

3.4 Summary of Environmental Risks

An ecological exposure assessment, hazard identification, and risk assessment were undertaken to evaluate the potential for exposure of terrestrial receptors to chemicals at SS-011, and to quantify any adverse affects. Based upon this analysis, minimal individual effects and no significant population-level effects to ecological receptors are expected.

4.0 DESCRIPTION OF THE "NO FURTHER ACTION" PREFERRED ALTERNATIVE

The removal action undertaken in 1991 was considered to be protective of human health and the environment, and be ARAR-compliant by NYSDEC and USEPA, who approved the Target Cleanup Level on July 23, 1990. Sampling and analysis were conducted concurrently during removal activities, both to determine the adequacy of the removal action, and for use in the baseline risk assessment (RA). Results of the RA show the removal action was fully effective in achieving protection of human health and environment. Therefore, no alternatives other than a "No Further Action" alternative were considered. "No Further Action" is the single and the preferred alternative. This alternative includes the following elements:

1) No further action will be undertaken at SS-011 to reduce site contaminants beyond their current levels.

2) Inspections will be conducted to assess the general condition of the site, including the progress of revegetation in areas disturbed by the removal action and the potential effects of runoff from or onto the site. The first inspection was completed in 1992. Future inspections are planned at 5-year intervals. After each inspection an evaluation will be undertaken to insure the continued protection of human health and the environment.

5.0 THE PUBLIC'S ROLE

The following paragraphs explain how the public can become involved in the selection process after reviewing this Proposed Plan.

5.1 Public Comment Period

Plattsburgh AFB will hold a 30-day public comment period from _____ to _____ to solicit public input. During this period, the public is invited to review this proposed plan, the SS-011 RI and RA reports, and the EE/CA, and to comment on the remedial alternative being considered. These documents make up the Administrative Record for Site SS-011. The full-length reports are available at the Information Repository located at:

Plattsburgh Public Library
15 Oak Street (Oak and Brinkerhof)
Plattsburgh, NY 12901
(518) 563-0921

TABLE 3-2

SUMMARY OF HUMAN HEALTH RISKS

SCENARIO	PATHWAY	RECEPTOR	CANCER RISK	HAZARD QUOTIENT
Present Use	Dermal Contact with Soil	Worker	NV	$5x10^{-4}$
		Youth	NV	$2x10^{-2}$
	Ingestion of Soil	Worker	$3x10^{-8}$	$7x10^{-4}$
		Youth	$8x10^{-7}$	$4x10^{-2}$
Future Residential Construction	Dermal Contact with Soil	Worker	$1x10^{-7}$	NV
	Ingestion of Soil	Worker	$3x10^{-7}$	$3x10^{-2}$
	Inhalation of Fugitive Dust	Worker	$5x10^{-9}$	$2x10^{-2}$
Completed Future Residential Development	Dermal Contact with Soil	Child/Adult	$1x10^{-5}$	$2x10^{-2}$
	Ingestion of Soil	Child/Adult	$1x10^{-5}$	$2x10^{-1}$
	Ingestion of Groundwater	Child/Adult	$2x10^{-6}$	$3x10^{-2}$
	Inhalation of Vapor While Showering	Child/Adult	$2x10^{-13}$	$3x10^{-3}$

NV = No value calculated since USEPA - approved dermal absorption factors were unavailable for contaminants of concern.

Hours:

Monday, Wednesday, Thursday, and Friday:
9 am to 8 pm
Tuesday and Saturday: 9 am to 5 pm

The repository documents are on reserve (see the Reference Librarian). Photocopying equipment is available.

5.2 Public Informational Meeting and Public Hearing

Plattsburgh AFB will host a public meeting at _____ pm on _____ at the _____, located at _____, in Plattsburgh, New York. The public is encouraged to attend this presentation about the preferred alternative and to ask questions. Immediately after the informational presentation, Plattsburgh AFB will hold a formal Public Hearing to accept comments about the remedial alternative being considered for Site SS-011. This hearing will provide the opportunity for people to comment officially on the plan. Public comments will be recorded and transcribed, and a copy of the transcript will be added to the Administrative Record located in the Information Repository.

5.3 Written Comments

If you would like to submit written comments about Plattsburgh AFB's preferred alternative or other issues relevant to the site remediation, please deliver your comments to Plattsburgh AFB's IRP Coordinator at the Public Hearing or mail your written comments (postmarked no later than _____) to:

IRP Public Affairs Coordinator
380 ARW/PA
Building 100
Plattsburgh AFB, NY 12903-5000
(518) 565-7006

5.4 Plattsburgh AFB's Review of Public Comment

Public comments are part of the process of reaching a final decision on an appropriate remedial alternative for SS-011. Plattsburgh AFB's final choice of a remedial alternative will be issued in a Record of Decision (ROD) for the site and will be submitted to USEPA and NYSDEC for review, approval, and signature. A Responsiveness Summary of public comments and Plattsburgh AFB's responses to them will accompany the ROD. Once the ROD is signed, it becomes part of the Administrative Record.

5.5 Additional Public Information

Because this Proposed Plan only summarizes the field investigation and remedial alternative for SS-011, the pubic is encouraged to consult the Administrative Record, which contains the complete RI, RA, and EE/CA reports. See Subsection 5.1 for the location of the Administrative Record.

REFERENCES

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USEPA, 1989. Guidance on Preparing Superfund Decision Document; The Proposed Plan, The Record of Decision, Explanation of Significant Differences, The Record of Decision Amendment, Interim Final July 1989.

GLOSSARY

Administrative Record: A file established and maintained in compliance with Section 113(K) of CERCLA consisting of information upon which the lead agency bases its final decisions on the selection of remedial method(s) for a Superfund site. The Administrative Record is available to the public.

Applicable or Relevant and Appropriate Requirements (ARARs): ARARs include any state of federal statute or regulation that pertains to protection of public health and the environmental in addressing certain site conditions or using a particular remedial technology at a Superfund site. A state law to preserve wetland areas is an example of an ARAR. USEPA must consider whether a remedial alternative meets ARARs as part of the process for selecting a remedial alternative for a Superfund site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The act requires federal agencies to investigate and remediate abandoned or uncontrolled hazardous waste sites.

DDT: Dichlorodiphenyltrichloroethane is a colorless, odorless, water-insoluble crystalline insecticide that tends to accumulate in ecosystems and has toxic effects on many vertebrates.

Ecological Receptors: Fauna or flora in a given area that could be affected by contaminants in surface soils, surface water, and/or sediment.

Environmental Engineering/Cost Analysis (EE/CA): The EE/CA evaluates alternative

soil removal/disposal alternatives to choose the best one.

Groundwater: Water found beneath the earth's surface that fills pores within materials such as sand, soil, gravel, and cracks in bedrock, and often serves as a source of drinking water.

Grub: To clear by digging up roots and stumps.

Inorganic Compounds: A class of naturally occurring compounds that includes metals, cyanide, nitrates, sulfates, chlorides, carbonate, bicarbonate, and other oxide complexes.

Installation Restoration Program (IRP): The U.S. Air Force subcomponent of the Defense Environment Restoration Program (DERP) that specifically deals with investigating and remediating sites associated with suspected releases of toxic and hazardous materials from past activities. The DERP was established to clean up hazardous waste disposal and spill sites at Department of Defense facilities nationwide.

Low-Permeability: Permeability is a measure of the capacity of a liquid to pass through a given material. A low-permeability soil would therefore allow a limited amount of water to pass through.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The NCP provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. The NCP is required under CERCLA and the Clean Water Act and USEPA has been delegated the responsibility for preparing and implementing the NCP. The NCP is applicable to response actions taken pursuant to the authorities under CERCLA and the Clean Water Act.

National Priorities List: USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program.

Organic Compounds: Any chemical compounds built on the carbon atom, i.e., methane, propane, phenol, etc.

Petroleum Hydrocarbons (PHCs): The mixture of hydrocarbons and small amounts of other substances that make up petroleum. Hydrocarbons are chemical compounds consisting of carbon and hydrogen, and are found in gasoline, naphtha, and other products produced by refining processes.

Preliminary Assessment: The first stage of the IRP process, conducted to identify potential hazardous waste sites.

Proposed Plan: A public document that solicits public input on a recommended remedial alternative to be used at a National Priorities List (NPL) site. The Proposed Plan is based on information and technical analysis generated during the RI/FS. The recommended remedial action could be modified or changed based on public comments and community concerns.

Record of Decision (ROD): A public document that explains the remedial alternative to be used as National Priorities List (NPL) site. The ROD is based on information and technical analysis generated during the Remedial Investigation, and on consideration of the public comments and community concerns received on the Proposed Plan. The ROD includes a Responsiveness Summary of public comments.

Remedial Action: A long-term action that stops or substantially reduces a release or threat of a release of hazardous substances that is serious but not an immediate threat to human health or the environment.

Remedial Alternatives: Options evaluated to address the source and/or migration of contaminants to meet health-based or ecology-based remediation goals.

Remedial Investigation (RI): The Remedial Investigation determines the nature and extent and composition of contamination at a hazardous waste site, and directs the types of remedial options that are developed in the Feasibility Study.

Site Inspection (SI): The SI is the second stage of the IRP process, conducted to confirm the presence or absence of contamination at a site.

Source: Area at a hazardous waste site from which contamination originates.

Superfund: CERCLA created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Out of this fund USEPA either: (1) pays for site remediation when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work or (2) takes legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the cost of the remediation. Federal facilities are not eligible for Superfund monies.

Terrestrial Wildlife: Animals living on land (e.g., reptiles, small mammals, small birds, predatory mammals, predatory birds).